## AMENDMENTS TO THE CLAIMS

1.-7. **(Canceled)**

8. **(Previously presented)** A pharmaceutical composition for the delivery of a therapeutic agent comprising:

(A) a therapeutic agent; and

(B) an effective amount of rotavirus protein VP4, or its derived polypeptide VP8, its functional variants, derived proteins, derived fusion proteins and functional peptides derived from them as well as their mixtures.

9. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is an oral dosage composition for intestinal delivery of the therapeutic agent, and administering is by oral administration.

10. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is a nasal dosage composition for administering by nasal administration.

11. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is a cutaneous dosage composition for administering by the skin.

12. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is a vaginal dosage composition for administering by the vagina.

13. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is a rectal dosage composition for administering by the rectum.

14. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is in the form of an aerosol dosage composition for administering to the respiratory system.

15. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said composition is an intravenous dosage composition for delivery of said therapeutic agent through the blood-brain barrier, and said administering is by intravenous administration.

16. **(Previously presented)** The pharmaceutical composition as claimed in claim 8, wherein said therapeutic agent is a drug, a peptide with biological activity, a vaccine, or any composition that is not adequately absorbed by the transcellular route.

17. (**Previously presented**) The pharmaceutical composition as claimed in claim 16, wherein said drug is selected from those that act on the cardiovascular system, the central nervous system, antineoplastic drugs and antibiotics.

18. (**Original**) The pharmaceutical composition of claim 17, wherein said drug which acts on the cardiovascular system is selected from the group consisting of lidocaine, adenosine, dobutamine, dopamine, epinephrine, norepinephrine and phentolamine.

19. (**Original**) The pharmaceutical composition of claim 17 wherein said drug which acts on the central nervous system is selected from the group consisting of doxapram, alfentanil, dezocin, nalbuphine, buprenorphine, naloxone, ketorolac, midazolam, propofol, metacurine, mivacurium and succinylcholine.

20. (**Original**) The pharmaceutical composition of claim 17, wherein said antineoplastic drug is selected from the group consisting of cytarabine, mitomycin, doxorubicin, vincristine and vinblastine.

21. (**Original**) The pharmaceutical composition of claim 17, wherein said antibiotic is selected from the group consisting of methicillin, meziocillin, piperacillin, cetoxitin, cefonicid, cefmetazole and aztreonam.

22. (**Original**) The pharmaceutical composition of claim 16, wherein said biologically active peptide is selected from the group consisting of a hormone, lymphokine, globulin and albumin.

23. (**Original**) The pharmaceutical composition of claim 22, wherein said hormone is selected from the group consisting of testosterone, nandrolene, menotropins, insulin and urofolltropin.

24. (**Original**) The pharmaceutical composition of claim 22, wherein said lymphokine is selected from the group consisting of interferon-alpha, interferon-beta, interferon-gamma, interleukin-1, interleukin-2, interleukin-4 and interleukin-8.

25. (**Original**) The pharmaceutical composition of claim 22, wherein said globulin is selected from the group consisting of alpha-globulins, beta-globulins and immunoglobulins.

26. (**Original**) The pharmaceutical composition of claim 22, wherein said globulin is an immunoglobulin selected from the group consisting of polyvalent IgG, and specific IgG, IgA or IgM.

27. (**Previously presented**) The pharmaceutical composition of claim 22, wherein said albumin is selected from the group consisting of human serum albumin and ovalbumin.

28. (**Previously presented**) The pharmaceutical composition of claim 16, wherein said vaccine is selected from the group consisting of viral peptidic antigens, attenuated microorganisms, and vaccines based in RNA replicons, small interfering RNAs (siRNAs), virus like particles (VLPs), subunit virus vaccines, DNA and RNA vaccines.

29. (**Previously presented**) The pharmaceutical composition of claim 28, wherein said peptidic antigens include B subunit of heat sensitive enterotoxin of enterotoxic *E. coli*, B subunit of cholera toxin, capsular antigens of enteric pathogens, fimbria and pili of enteric pathogens, surface antigens of HIV, dust allergens and acarus.

30. (**Previously presented**) The pharmaceutical composition of claim 28, wherein said attenuated microorganisms comprise those of enterotoxic *E. coli*, enteropathogen *E. coli*, enterohemorragic *E. coli*, enteroinvasive *E. coli*, Vibrio Cholera, *Shigella flexneri*, *Salmonella typhy*, *Helicobacter pylori*, rotavirus, astrovirus, adenovirus and calicivirus.

31. (**Original**) The pharmaceutical composition of claim 8, wherein said the therapeutic agent is insulin.

32.-37. (**Canceled**)

38. (**Original**) An isolated peptide with SEQ. ID. NO. 3.

39. (**Original**) An isolated peptide with SEQ. ID. NO. 4.

40. (**Original**) An isolated peptide with SEQ. ID. NO. 5.

41. (**Original**) An isolated peptide with SEQ. ID. NO. 6.

42. (**Previously presented**) An isolated peptide with SEQ. ID. NO. 7.

43. (**Previously presented**) The pharmaceutical composition of Claim 8 further comprising an acceptable pharmaceutical vehicle.

44. (**Canceled**)